# STATEMENT OF WORK Stream Crossing (578) TENNESSEE

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

#### DESIGN

## **Deliverables**

- 1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
  - a. Type of stream crossing and practice purpose(s) as identified in the conservation plan.
  - b. Impacts on adjacent properties and structures.
  - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A Engineering Activities Affecting Utilities 503.00 through 503.06).
  - d. List of facilitating practices.
  - e. Practice standard criteria related computations and analyses to develop plans and specifications including, but not limited to:
    - i. Geology/Soil Mechanics.
    - ii. Hydrology/Hydraulics.
    - iii. Structural.
    - iv. Vegetation/Soil Bioengineering.
  - f. Evaluation and completion of TN-CPA-25, Environmental Effects for Conservation and Areawide Plans.
- Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits. The plans and specifications should include the following:
  - a. Drawings such as NRCS STR-578-1 and STR-578-2 or other NRCS approved drawings.
  - b. Material and Construction Specifications.
  - c. Width of crossing.
  - d. Total length of crossing.
  - e. Grade or percent of slope of the approach ramps.
  - f. Type and dimensions of geotextile fabric.
  - g. Dimensions of the trench and the method of securing the ends of the geotextile.
  - h. Type, size, and number of anchoring pins used to tie down the geotextile.
  - i. Gradation, type, and quantity of gravel or other surfacing materials.
  - j. Location and extent of fencing required.
  - k. Location and quantities of seeding required to vegetate disturbed areas.
  - 1. Method of surface water diversion during construction.
  - m. Other pertinent design data and approval signature.
- 2. Design Report and Inspection Plan, as appropriate (NEM Part 511, Subpart B, Documentation, 511.11 and Part 512, Subpart D, Quality Assurance Activities, 512.30 through 512.32).
- 3. Operation and Maintenance Plan.
- 4. Certification that the design meets practice standard criteria and complies with applicable laws and regulations [NEM Subpart A, 505.03(b)(2)].
- 5. Design modifications during installation, as required.

#### INSTALLATION

#### Deliverables

- 1. Pre-installation conference with client and contractor.
- 2. Staking and layout according to plans and specifications including applicable layout notes.
- 3. Installation inspection (according to inspection plan, as appropriate).
  - a. Actual materials used.
  - b. Inspection records.
- 4. Facilitate and implement required design modifications with client and original designer.
- 5. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
- 6. Certification that the installation process and materials meet design requirements.

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### **CHECK OUT**

## Deliverables

- 1. As-built documentation.
  - a. Extent of practice units applied.
  - b. Drawings.
  - c. Final quantities.
  - d. Slope of approaches.
  - e. Profile on stream channel to show crossing and stream are on a uniform grade.
  - f. Type and quantity of geotextile used.
  - g. Gradation, quantity, and type of gravel.
  - h. Adequacy of vegetation.
  - i. Other pertinent data.
  - j. Statement to the effect that practice meets plans and specifications.
  - k. Signature and date of person making certification.
- 2. Certification that the installation meets NRCS standards and specifications [NEM Subpart A, 505.03(c) (1)].
- 3. Progress reporting.

### REFERENCES

- NRCS Tennessee <u>Field Office Technical Guide</u> (e-FOTG), Section IV, Conservation Practice Standard Stream Crossing (578).
- NRCS National Engineering Manual (NEM).
- NRCS <u>National Environmental Compliance Handbook</u>.
- NRCS <u>Cultural Resources Handbook.</u>